

NUCLEOLIN ANTISENSE SEQUENCE FOR INHIBITION OF CANCER CELL PROLIFERATION

ABSTRACT OF THE DISCLOSURE

Disclosed is a nucleolin antisense oligonucleotide for inhibition of tumor cell proliferation. The nucleolin antisense oligonucleotide comprising 20 nucleotides is complementary to the nucleolin mRNA. When the nucleolin antisense oligonucleotide hybridizes to nucleolin mRNA, it is effective in suppression of nucleolin RNA synthesis and the corresponding protein expression, which subsequently arrests the growth rate of tumor cells. The nucleolin antisense oligonucleotide is effective in inhibition of nucleolin expression of tumor cells *in vitro* and *in vivo*. Therefore, the nucleolin antisense oligonucleotide can be used as a therapeutic agent for inhibition of tumor cell proliferation.